

# INTERNATIONAL SEARCH REPORT

International Application No.  
PCT/EP 03/07605

## A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 A61K39/02

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 A61K

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the International search (name of data base and, where practical, search terms used)

WPI Data, EMBASE, EPO-Internal, BIOSIS

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	WO 98 33884 A (GRIFFITHS STEVEN GARETH ;SALONIUS KIRA (CA); AQUA HEALTH EUROP LTD) 6 August 1998 (1998-08-06)	7-14,21
A	the whole document	1-6, 15-20
Y	KUZYK M A ET AL: "An efficacious recombinant subunit vaccine against the salmonid rickettsial pathogen <i>Piscirickettsia salmonis</i> " VACCINE, BUTTERWORTH SCIENTIFIC. GUILDFORD, GB, vol. 19, no. 17-19, 21 March 2001 (2001-03-21), pages 2337-2344, XP004231046 ISSN: 0264-410X	7-14,21
A	page 2342, left-hand column, paragraph 2 -page 2343, left-hand column, paragraph 3	1-6, 15-20
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☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

### \* Special categories of cited documents:

\*A\* document defining the general state of the art which is not considered to be of particular relevance

\*E\* earlier document but published on or after the International filing date

\*L\* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

\*O\* document referring to an oral disclosure, use, exhibition or other means

\*P\* document published prior to the International filing date but later than the priority date claimed

\*T\* later document published after the International filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

\*X\* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

\*Y\* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

\*Z\* document member of the same patent family

Date of the actual completion of the International search

3 December 2003

Date of mailing of the International search report

30/12/2003

Name and mailing address of the ISA

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## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	WO 96 11707 A (OREGON STATE) 25 April 1996 (1996-04-25)	7-14, 21
A	the whole document	1-6, 15-20
A	<p>---            KUZYSK M A ET AL: "ANTIGENIC            CHARACTERIZATION OF THE SALMONID PATHOGEN            PISCIRICKETTSIA SALMONIS"            INFECTION AND IMMUNITY, AMERICAN SOCIETY            FOR MICROBIOLOGY. WASHINGTON, US,            vol. 64, no. 12, December 1996 (1996-12),            pages 5205-5210, XP001029511            ISSN: 0019-9567            page 5208, left-hand column, paragraph 3            -page 5209, left-hand column, last            paragraph</p> <p>---</p>	1-21
A	<p>---            KOCH C ET AL: "16S RDNA STUDIES ON            MEMBERS OF ARTHROBACTER AND MICROCOCCUS:            AN AID FOR THEIR FUTURE TAXONOMIC            RESTRUCTURING"            FEMS MICROBIOLOGY LETTERS, AMSTERDAM, NL,            vol. 123, no. 1/2, 1994, pages 167-171,            XP002066096            ISSN: 0378-1097            page 168, right-hand column, paragraph 2            page 170, left-hand column, paragraph 2</p> <p>---</p>	1-21
A	<p>---            GUDDING R ET AL: "Recent developments in            fish vaccinology"            VETERINARY IMMUNOLOGY AND IMMUNOPATHOLOGY,            AMSTERDAM, NL,            vol. 72, 1999, pages 203-212, XP002968601            ISSN: 0165-2427            page 207 -page 209</p> <p>---</p>	1-21
A	<p>---            JONES S R M: "THE EFFECT OF MICROBIAL            EXTRACTS ON THE SEVERITY OF EXPERIMENTAL            PISCIRICKETTSIA SALMONIS INFECTION IN COHO            SALMON, ONCORHYNCHUS KISUTCH"            DEVELOPMENTS IN BIOLOGICAL            STANDARDIZATION, KARGER, BASEL, CH,            vol. 90, 1997, page 430 XP009016791            ISSN: 0301-5149            the whole document</p> <p>-----</p>	1-21

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## Box I Observations where certain claims were found unsearchable (Continuation of Item 1 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☒ Claims Nos.:  
because they relate to subject matter not required to be searched by this Authority, namely:  
**Although claims 19 to 21 are directed to a method of treatment of the human/animal body, the search has been carried out and based on the alleged effects of the compound/composition.**
2. ☐ Claims Nos.:  
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
3. ☐ Claims Nos.:  
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

## Box II Observations where unity of invention is lacking (Continuation of Item 2 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

see additional sheet

1. ☐ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. ☒ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

### Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☐ No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. Claims: 1-6, 15 -20

Invention I: Use of live *Arthrobacter* cells for the preparation of a medicament for treatment or prevention of piscirickettsiosis in fish, vaccine composition or kit comprising live *Arthrobacter* in combination with a *P. salmonis* antigen and use thereof for protection against SRS and BKD.

2. Claims: 7, 8, 14 (completely), 9-13 (partially)

Invention II: Vaccine composition comprising live *Arthrobacter* cell in combination with an immunostimulant, e.g. cell material from killed *Arthrobacter* cells, or a further, non specified, immunogen

3. Claims: 9-13 (all partially), 21

Invention III: Vaccine composition comprising cell material from killed *Arthrobacter* cells as immunostimulant, use of killed *Arthrobacter* cell material as immunostimulant for fish.

# INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/EP 03/07605

Patent document cited in search report		Publication date		Patent family member(s)	Publication date
WO 9833884	A	06-08-1998	AU	5773998 A	25-08-1998
			EP	1012230 A1	28-06-2000
			WO	9833884 A1	06-08-1998
			US	6627203 B1	30-09-2003
WO 9611707	A	25-04-1996	US	5871751 A	16-02-1999
			AU	4000195 A	06-05-1996
			CA	2202499 A1	25-04-1996
			GB	2308300 A ,B	25-06-1997
			NO	971650 A	06-06-1997
			WO	9611707 A1	25-04-1996